AMENDMENTS TO THE CLAIMS

The following is a complete, marked up listing of revised claims with a status identifier in parentheses, underlined text indicating insertions, and strikethrough and/or double-bracketed text indicating deletions.

LISTING OF CLAIMS

1. (Currently Amended) A computer-readable medium storing an executable data structure for managing reproduction of at least video data representing multiple reproduction paths by a reproducing apparatus, comprising:

a data area storing a transport stream of at least video data, the transport stream being divided into transport packets~~, each of the transport packets associated with one of the multiple reproduction paths~~, and the transport packets of ~~each~~ the multiple reproduction paths being interleaved with one another; and

a navigation area storing a first navigation unit, the first navigation unit including one or more second navigation units and controlling a reproduction order of the second navigation units, at least one second navigation unit referencing more than one map, the map identifying transport packets associated with one of the reproduction paths and providing relation information between presentation time and transport packets of the associated reproduction path, ~~and~~ the at least one second navigation unit including at least one identifier ~~for identifying~~ storing the identity of ~~one path of~~ the

associated ~~multiple~~ reproduction path~~s, each map associated with a different one of the multiple reproduction paths~~.

2. (Original) The recording medium of claim 1, wherein the transport packets associated with each reproduction path are grouped into data blocks, and the transport packets of each reproduction path are interleaved with one another on a data block by data block basis.

3. (Original) The recording medium of claim 2, wherein each data block represents at least an intra-coded picture of video data.

4. (Original) The recording medium of claim 3, wherein each data block represents at least one group of pictures (GOP).

5- 8. (Cancelled)

9. (Previously Presented) The recording medium of claim 1, wherein the at least one second navigation unit includes a multiple reproduction path indicator for indicating that the at least one second navigation unit provides navigation information for multiple reproduction paths.

10. (Cancelled)

11. (Currently Amended) A computer-readable medium storing an executable data structure for managing reproduction of at least video data representing multiple reproduction paths by a reproducing apparatus, comprising:

a data area storing a transport stream of at least video data, the transport stream being divided into transport packets, ~~each of the transport packets associated with one of the multiple reproduction paths,~~ and the transport packets of ~~each~~ the multiple reproduction paths being interleaved with one another; and

a navigation area including a first navigation unit including one or more second navigation units, the second navigation unit providing navigation information for reproducing each of the multiple reproduction paths, including a multiple reproduction path flag, the value of the flag ~~indicator for~~ indicating that the second navigation unit provides navigation information for multiple reproduction paths, the second navigation unit including at least one identifier ~~for identifying~~ storing the identify of one path of the multiple reproduction paths, the second navigation unit ~~and~~ referencing more than one map, the map identifying transport packets associated with one of the reproduction paths and providing relation information between presentation time and transport packets of the associated reproduction path ~~each map associated with a different one of the multiple reproduction paths~~.

12 – 13. (Cancelled)

14. (Previously Presented) The recording medium of claim 1, wherein each reproduction path represents one of a digital channel and a sub-channel of an RF channel.

15. (Cancelled)

16. (Currently Amended) A method of recording a data structure for managing reproduction of at least video data representing multiple reproduction paths, comprising:

recording a transport stream of at least video data on the recording medium, the transport stream being divided into transport packets~~, each of the transport packets associated with one of the multiple reproduction paths~~, and the transport packets of ~~each~~ the multiple reproduction paths being interleaved with one another; and

recording a first navigation unit on the recording medium, the first navigation unit including one or more second navigation units and controlling a reproduction order of the second navigation units, at least one of the second navigation units referencing more than one map, the map identifying transport packets associated with one of the reproduction paths and providing relation information between presentation time and transport packets of the associated reproduction path, ~~and~~ the at least one second navigation unit including at least one identifier ~~for identifying~~ storing the identity of ~~one path of~~ the

associated ~~multiple~~ reproduction path~~s, each map associated with a different one of the multiple reproduction paths~~.

17. (Currently Amended) A method of reproducing a data structure for managing reproduction duration of at least video data representing multiple reproduction paths, comprising:

reading a first navigation unit from the recording medium, the first navigation unit including one or more second navigation units and controlling a reproduction order of the second navigation units, at least one of the second navigation units referencing more than one map, the map identifying transport packets associated with one of the reproduction paths and providing relation information between presentation time and transport packets of the associated reproduction path, ~~and~~ the at least one second navigation unit including at least one identifier ~~for identifying~~ storing the identify of ~~one path of~~ the associated ~~multiple~~ reproduction path~~s, each map associated with a different one of the multiple reproduction paths~~; and

reproducing a transport stream of at least video data from the recording medium, the transport stream being divided into transport packet~~s, each of the transport packets associated with one of the multiple reproduction paths~~, and the transport packets of ~~each~~ the multiple reproduction path~~s~~ being interleaved with one another.

18. (Currently Amended) An apparatus for recording a data structure for managing reproduction duration at least video data representing multiple reproduction paths, comprising:

a pickup configured to record data on the recording medium;

a controller, operably coupled to the pickup, configured to control recording a transport stream of at least video data on the recording medium, the transport stream being divided into transport packets, ~~each of the transport packets associated with one of the multiple reproduction paths,~~ and the transport packets of ~~each~~ the multiple reproduction paths being interleaved with one another, and the controller configured to control recording a first navigation unit on the recording medium, the first navigation unit including one or more second navigation units and controlling a reproduction order of the second navigation units, at least one of the second navigation units referencing more than one map, the map identifying transport packets associated with one of the reproduction paths and providing relation information between presentation time and transport packets of the associated reproduction path, ~~and~~ the at least one second navigation unit including at least one identifier ~~for identifying~~ storing the identity of ~~one path of~~ the associated ~~multiple~~ reproduction paths~~, each map associated with a different one of the multiple reproduction paths~~.

19. (Currently Amended) An apparatus for reproducing a data structure for managing reproduction duration of at least video data representing multiple reproduction paths, comprising:

a pickup configured to reproduce data recorded on the recording medium;

a controller, operably coupled to the pickup, configured to control reproducing a first navigation unit on the recording medium, the first navigation unit including one or more second navigation units and controlling a reproduction order of the second navigation units, at least one of the second navigation units referencing more than one map, the map identifying transport packets associated with one of the reproduction paths and providing relation information between presentation time and transport packets of the associated reproduction path, ~~and~~ the at least one second navigation unit including at least one identifier ~~for identifying~~ storing the identity of ~~one path of~~ the associated ~~multiple~~ reproduction path~~s, each map associated with a different one of the multiple reproduction~~ and the controller configured to control reproducing a transport stream of at least video data from the recording medium according to the reproduced the first navigation unit, the transport stream being divided into transport packet~~s, each of the transport packets associated with one of the multiple reproduction paths~~, and the transport packets of ~~each~~ the multiple reproduction path~~s~~ being interleaved with one another.

20. (Previously Presented) The recording medium of claim 1, wherein maps associated with the at least one of the second navigation units are each associated with a different one of the multiple reproduction paths.

21. (Previously Presented) The recording medium of claim 20, wherein a number of the maps associated with the at least one of the second navigation units is equal to a number of the multiple reproduction paths.

22. (Previously Presented) The recording medium of claim 21, wherein the at least one of the second navigation units includes a field for indicating whether the at least one of the second navigation units provides navigation information for multiple reproduction paths.

23. (Currently Amended) A method of creating a data structure for managing reproduction of at least video data representing multiple reproduction paths, comprising:

generating a transport stream of at least video data, the transport stream being divided into transport packets, ~~each of the transport packets associated with one of the multiple reproduction paths,~~ and the transport packets of ~~each~~ the multiple reproduction paths being interleaved with one another; and

generating a first navigation unit for managing reproduction of the at least video data, the first navigation unit including one or more second navigation units and controlling a reproduction order of the second navigation units, at least

one of the second navigation units referencing more than one map, the map identifying transport packets associated with one of the reproduction paths and providing relation information between presentation time and transport packets of the associated reproduction path, ~~and~~ the at least one second navigation unit including at least one identifier ~~for identifying~~ storing the identity of ~~one path of~~ the associated ~~multiple~~ reproduction path~~s, each map associated with a different one of the multiple reproduction paths~~.

24. (Previously Presented) The recording medium of claim 11, wherein the transport packets associated with each reproduction path are grouped into data blocks, and the transport packets of each reproduction path are interleaved with one another on a data block by data block basis.

25. (Previously Presented) The recording medium of claim 24, wherein each data block represents at least an intra-coded picture of video data.

26. (Previously Presented) The recording medium of claim 11, wherein each reproduction path represents one of a digital channel and a sub-channel of an RF channel.

27. (Previously Presented) The method of claim 16, wherein the transport packets associated with each reproduction path are grouped into

data blocks, and the transport packets of each reproduction path are interleaved with one another on a data block by data block basis.

28. (Previously Presented) The method of claim 27, wherein each data block represents at least an intra-coded picture of video data.

29. (Previously Presented) The method of claim 16, wherein each reproduction path represents one of a digital channel and a sub-channel of an RF channel.

30. (Previously Presented) The method of claim 17, wherein the transport packets associated with each reproduction path are grouped into data blocks, and the transport packets of each reproduction path are interleaved with one another on a data block by data block basis.

31. (Previously Presented) The method of claim 30, wherein each data block represents at least an intra-coded picture of video data.

32. (Previously Presented) The method of claim 17, wherein each reproduction path represents one of a digital channel and a sub-channel of an RF channel.

33. (Previously Presented) The apparatus of claim 18, wherein the controller is configured to control recording the transport packets associated with each reproduction path being grouped into data blocks, and the transport packets of each reproduction path are interleaved with one another on a data block by data block basis.

34. (Previously Presented) The apparatus of claim 33, wherein each data block represents at least an intra-coded picture of video data.

35. (Previously Presented) The apparatus of claim 18, wherein the controller is configured to control recording transport packets of each reproduction path representing one of a digital channel and a sub-channel of an RF channel.

36. (Previously Presented) The apparatus of claim 19, wherein the controller is configured to control reproducing the transport packets associated with each reproduction path being grouped into data blocks, and the transport packets of each reproduction path are interleaved with one another on a data block by data block basis.

37. (Previously Presented) The apparatus of claim 36, wherein each data block represents at least an intra-coded picture of video data.

38. (Previously Presented) The apparatus of claim 19, wherein the controller is configured to control reproducing transport packets of each reproduction path representing one of a digital channel and a sub-channel of an RF channel.

39. (Cancelled)